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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/659,223	09/10/2003	Krishnamurthy Bhaskar	58552.US	5755

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EXAMINER	
REKSTAD, ERICK J	
ART UNIT	PAPER NUMBER
2621	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/23/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/659,223	Applicant(s) BHASKAR ET AL.	
	Examiner Erick Rekstad	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 September 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This is a First Office Action for application no. 10/659,223 filed on September 10, 2003 wherein claims 1-20 are presented for examination.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 20 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

[claim 20]

Claim 20 recites the limitation "frame grabber". There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-17, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6,370,487 to Dorrough in view of US Patent 5,926,208 to Noonan et al.

[claim 1]

As shown in Figure 1A, Dorough teaches a system for inspecting a substrate (100). The system comprises an inspector (108) having a sensor (118, 120), a network (111), and a desktop (102A-n) for receiving the video stream (Abstract, Col 1 Lines 12-16), Col 1 Line 64-Col 2 Line 1). Dorough is silent on the use of a control interface.

As shown in Figure 2, Noonan teaches the connection of a camera system (1000) to a computer system (1002) wherein the computer system provides a user an interface (1016) to configure the video camera system (1000) (Abstract). The network (1006) connecting the computer system to the video camera system provides for a control stream (Col 10 Lines 17-27) and a video stream (Col 10 Lines 55-58). It would have been obvious to one of ordinary skill in the art to adapt the inspector of Dorough in order to provide the inspector a means to control the camera so multiple compression standards can be used as taught by Noonan (Col 3 Lines 6-12)

[claims 2-4]

Dorough teaches the use of the system for analyzing semiconductor wafers (Col 1 Lines 11-16, Col 1 Lines 34-40, Col 3 Lines 10-15).

[claim 5]

As shown in Figure 1A, Dorough teaches the use of multiple video sources (118 and 120).

[claims 6-14]

Dorough teaches the use of a video capture system (112) for converting the analog video into a digital form (Col 4 Lines 46-49). Dorough further teaches the video capture system includes a video encoder (CODEC) which encodes, or compresses the

captured frames (Col 6 Lines 61-65). Dorough teaches the encoding in the ASF or Real Video formats (Col 5 Lines 5-10). Dorough is silent on the use of a parser.

Noonen teaches the ability of the user to select several options for configuring the camera system(Figs. 4-7). Noonen teaches one selection is the codec to use (MPEG-1, H.320, H.324 and JPEG). The codec selection determines the motion estimation, loop filters, DCTs, quantization, and zigzag scanning operations used by the system (Col 8 Lines 23-35). The user's selection further includes a configuration file (MEP.CFG 3026, Fig. 4) which allows the user to configure the bit rate to compress, how much compression and how much information to throw away, and which colors to affect (Col 10 Lines 35-40). The user is further provided an initialization file (Camera.INI 3028, Fig 4) for setting up the focus, zoom, exposure, light balance, etc for the video source (Col 10 Lines 40-44). In regards to claim 6, the above configuration files are provided prior to delivery of the video stream from the sensor to the desktop (Col 10 Lines 17-28).

Note, the selection of the codec affects the degree of compression as required by claims 7 and 8(Col 8 Lines 23-35), the down sampling of the video stream as required by claims 9 and 10(Col 10 Lines 35-40), and frame rate as required by claims 13 and 14(Col 11 Lines 4-9). The Camera.INI file allows the selection of cropping the video (zoom) as required by claims 11 and 12(Col 10 Lines 40-44).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the configurable camera system of Noonen with the inspection system of Dorough in order to provided the user the ability to configure the compression

based on the needs of the user and the environment as taught by Noonen (Col 2 Lines 30-54, Col 10 Lines 41-43).

[claim 15]

As shown above for claim 1, Figure 1A of Dorough teaches a system for inspecting a substrate (100). The system comprises an inspector (108) having a sensor (118, 120), a network (111), and a desktop (102A-n) for receiving the video stream (Abstract, Col 1 Lines 12-16), Col 1 Line 64-Col 2 Line 1). Dorough is silent on the use of a control interface.

Figure 2 of Noonen teaches the connection of a camera system (1000) to a computer system(1002) wherein the computer system provides a user an interface(1016) to configure the video camera system(1000) (Abstract). The network (1006) connecting the computer system to the video camera system provides for a control stream (Col 10 Lines 17-27) and a video stream (Col 10 Lines 55-58).

As shown above for claims 7-14, Noonen teaches the use of a video communication processor (MEP 1024, Fig. 2) connected to the video source (Col 7 Lines 23-39, Fig. 3). The video communication processor provides the means for compressing, decimating, parsing, and frame rate selection (Col 8 Lines 23-35, Col 10 Lines 17-28 and 35-44, Figs. 4-7).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the configurable camera system of Noonen with the inspection system of Dorough in order to provided the user the ability to configure the compression

based on the needs of the user and the environment as taught by Noonan (Col 2 Lines 30-54, Col 10 Lines 41-43).

[claims 16-17]

Dorough teaches the use of the system for analyzing semiconductor wafers (Col 1 Lines 11-16, Col 1 Lines 34-40, Col 3 Lines 10-15).

[claim 19]

Dorough teaches the use of an additional video stream source (SEM 2, Fig. 1A).

[claim 20]

As best understood by the examiner with regards to the above 112 rejection, Dorough and Noonan teach the system of claim 15 as shown above. The rejection of claim 15 further teaches the compressing, decimating, parsing and frame rate selection is performed by the MEP ((Col 8 Lines 23-35, Col 10 Lines 17-28 and 35-44, Figs. 4-7). The MEP of Noonan is further shown to reside within the inspector(1000, Fig. 2) (Col 5 Lines 29-35, Fig. 2).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the configurable camera system of Noonan with the inspection system of Dorough in order to provided the user the ability to configure the compression based on the needs of the user and the environment as taught by Noonan (Col 2 Lines 30-54, Col 10 Lines 41-43).

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dorough and Noonan as applied to claim 15 above, and further in view of US Patent 6,721,952 to Guedalia et al.

[claim 18]

As shown above for claim 15, Dorough and Noonan teach an inspecting system. Noonan further teaches the ability of the user to select different settings for the encoding of the video source (Col 8 Lines 23-35, Col 10 Lines 17-28 and 35-44, Figs. 4-7). Dorough and Noonan are silent on the connection between zooming and image quality.

Guedalia teaches the ideal use of a zooming function by the user is to obtain a sub-image with higher resolution (Col 1 Lines 66-Col 2 Lines 15). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the gazing feature of Guedalia with the system of Dorough and Noonan in order to provide a user with the ability to zoom in on a low resolution full image to obtain high resolution sub-images as taught by Guedalia.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent 6,583,813 to Enright et al.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erick Rekstad whose telephone number is 571-272-7338. The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on 571-272-7418. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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